

REMARKS

Claims 1-10, 14-24, 31-34, and 36-97 were pending in the application. Claims 47-51 are allowed. Claims 1-10, 14-24, 31-34, 36-61, and 63-93 are rejected. Claim 62 is objected to. Claims 1, 31, 38, 41, 51, 52, 53, 74, 81, and 85 have been amended. Claims 62 and 92-97 have been cancelled. Claims 1-10, 14-24, 31-34, and 36-61, and 63-91 are now pending in the application. Favorable reconsideration and allowance of this application is respectfully requested in light of the foregoing amendments and the following remarks.

I. Telephone Interview

Applicant wishes to thank Examiner Thomas for his time and courtesy in conducting the telephone interview with Applicant on September 8, 2003. During the interview, Applicant and the Examiner agreed that the cited prior art does not appear to teach or suggest a MEMS device supported by a substrate, wherein a gap is disposed between a movable MEMS element and a stationary/conductive MEMS element, and wherein the gap defines a variable-sized dimension that extends substantially parallel to the substrate. Applicant and the Examiner further agreed that the prior art does not appear to teach or suggest an electrical trace connected to the stationary/conductive MEMS element and disposed within an electrically insulating interface between the substrate and the stationary/conductive MEMS element. Applicant invites the Examiner to make any additional statements regarding the telephone interview.

II. Claim objections

Claim 62 is objected in Paragraph 7 of the Office Action. Claim 62 has been cancelled, thereby obviating this claim objection. Note that the subject matter of cancelled claim 62 has been introduced in dependent claim 53. The allowability of amended independent claim 52 is asserted as sufficient basis for the allowance of dependent claim 53.

III. Claim Amendments

Independent claim 1 has been amended to recite a movable MEMS element having a portion that is free from the substrate and positioned such that a gap separating the movable MEMS element from the at least one conductive element defines a variable-sized dimension extending substantially parallel to the substrate.

Independent claim 31 has been amended to recite that the gap defines a variable-sized dimension extending substantially parallel to the substrate.

Independent claim 38 has been amended to recite at least one electrical trace having a first terminal end in electrical communication with the at least one stationary conductive element and a second terminal end in electrical communication with the peripheral region, wherein the at least one electrical trace is disposed within an electrically insulating interface between the at least one conductive MEMS element and the substrate.

Independent claim 41 has been amended to recite first and second electrical traces having first terminal ends in electrical communication with the first and second stationary elements, respectively, and having second terminal ends in electrical communication with the peripheral region, wherein each trace is disposed within an electrically insulating interface between the substrate and the stationary conductive elements.

Dependent claim 51 has been amended to recite that the gap defines a variable-sized dimension that extends substantially parallel to the substrate.

Independent claim 52 has been amended to recite that the gap defines a variable-sized dimension extending substantially parallel to the substrate.

Dependent claim 53 has been amended to recite that the electrical trace is disposed within an electrically insulating layer between the stationary conductive element and the substrate.

Independent claim 74 has been amended to recite that the trace is disposed within an electrically insulating layer between the stationary element and the substrate.

Independent claim 81 has been amended to recite that the trace is disposed within an electrically insulating layer between the stationary element and the substrate.

Independent claim 85 has been amended to recite that first and second gaps separating the movable MEMS element from the first and second stationary elements, respectively, define variable-sized dimensions that extend substantially parallel to the substrate.

As discussed during the telephone interview, Applicant could not find any disclosure within any of the cited prior art references that teaches or suggests a MEMS device having any of the above claim limitations.

Accordingly, formal allowance of claims 1-10, 14-24, 31-34, and 36-61, and 63-91 is respectfully requested.

IV. Claim rejections under 35 U.S.C. §102

Claims 31, 36-37, 74, 78-80, 92, and 96-97 are rejected under 35 USC 102(e) as being anticipated by Dhuler (6,215,644).

Withdrawal of the rejections and formal allowance of claims 31, 36-37, 74, and 78-80 are respectfully requested in light of the Amendments to independent claims 31 and 74 and cancellation of claims 92 and 96-97.

V. Claim rejections under 35 U.S.C. §103

A. Paragraph 3 of Office Action

Paragraph 3 of the Office Action rejects claims 1, 4-6, 8-10, 14-15, 22, 32-34, 38-46, 52-53, 56-58, 60-61, 63-64, 71, 73, 75-77, 81-91, and 93 under 35 U.S.C. §103 as being unpatentable over Dhuler in view of Bishop.

Withdrawal of the rejection and formal allowance of claims 1, 4-6, 8-10, 14-15, 22, 32-34, 38-46, 52-53, 56-58, 60-61, 63-64, 71, 73, 75-77, and 81-91 are respectfully requested in light of the Amendments to claims 1, 31, 38, 41, 52, 53, 74, 81, and 85 and cancellation of claim 93.

B. Paragraph 4 of Office Action

Paragraph 4 of the Office Action rejects claims 1-10, 14-24, 31, 52-60, 65-70, 72, and 92-95 under 35 USC 103 as being unpatentable over Bishop in view of Fujii. Withdrawal of the rejection and formal allowance of claims 1-10, 14-24, 31, 52-60, 65-70, and 72 are respectfully requested in light of the Amendments to claims 1, 31, and 52 and cancellation of claims 92-95.

VI. Allowable Subject Matter

Applicant notes with appreciation that claims 47-51 have been allowed. Applicant wishes to note the amendment to dependent claim 51 as discussed above. Formal allowance of claims 47-51 is respectfully requested.

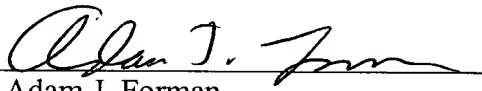
VII. Conclusion

Applicant therefore respectfully asserts that all rejections and objections cited by the Examiner have been overcome. Accordingly, the application is in condition for allowance, and a Notice of Allowance is earnestly solicited. The Examiner is invited to contact the undersigned at the telephone number appearing below if such would advance the prosecution of this application.

No fee is believed to be due with the filing of this Amendment. However, if a fee is deemed due, Applicant hereby authorizes the Commissioner to deduct said fees for this or any other communication, from Deposit Account No. 17-0055.

Respectfully submitted,

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